

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims:

1. (Currently amended) A processor-implemented database search system, comprising:

a database for storing a document file;

a database control unit for controlling a transfer of a document file to and from said database;

a search engine for searching said database on the basis of a keyword comprised of a character string, and for returning a search result to said database control unit; ~~and~~

~~a data file~~ an index file for use in a search process by means of said search engine, for retaining information indicating a correspondence of said keyword to positional information of the keyword, based on a field in the document file that includes said keyword;

wherein the index file comprises a key file that includes a list of pointers to character strings and positional information;

wherein the character strings are included in the document file and are stored in the database by document area where a character string in the document file appears and by a positional information file;

wherein the positional information file includes a list of positional information containing information that specifies the document file where a

character string exists and information that specifies a position of the character string in the document file regarding the character string in the key file; and

wherein for a variable-length chain included in the index file, a relational file is created by dividing each word in the variable-length chain into a plurality of fixed-length keywords.

2. (Currently amended) The database search system according to Claim 1, wherein the database control unit reads the document file from the database, and extracts a text of the document file and information indicating a structure of the document file, to send the text and the information to the search engine; and

the search engine creates the ~~data file~~ index file based on the text and the information indicating the structure of the document file received from the database control unit.

3. (Currently amended) The database search system according to Claim 1, wherein the ~~data file~~ index file retains, as the positional information on the keyword, information that identifies the document file containing the keyword and information that specifies a position of the keyword in the document file, each item of the positional information being associated with a corresponding item of the keyword listed as a separate item for a respective field.

4. (Currently amended) The database search system according to Claim 1, wherein the data-file index file comprises:

a first table that lists character strings contained in the document file stored in the database and pointers to positional information on the character strings, each character string being listed as a separate item for respective fields where the character string appears in the document file; and

a second table that lists positional information on each character string including the character strings listed in the first table, said positional information including information that identifies the document file containing the character string and information that specifies a position of the character strings in the document file.

5 - 12 and 15. (Canceled)

13. (Currently amended) A processor-implemented computer program product for use in searching a database, comprising:

database control means for controlling the transfer of a document file to and from a database; and

search means for referencing the data file index file retaining information that specifies a document file which includes a keyword containing a character string and information indicating a correspondence to the keyword according to a field in the document file, the document file including the keyword and transmitting information specifying the document file where the character string appears in the field to the database control means;

wherein the index file comprises a key file that includes a list of pointers to character strings and positional information;

wherein the character strings are included in the document file and are stored in the database by document area where a character string in the document file appears and by a positional information file;

wherein the positional information file includes a list of positional information containing information that specifies the document file where a character string exists and information that specifies a position of the character string in the document file regarding the character string in the key file; and

wherein for a variable-length chain included in the index file, a relational file is created by dividing each word in the variable-length chain into a plurality of fixed-length keywords.

14. (Currently amended) A computer program product having a plurality of executable instruction codes stored on a computer-usable medium, for use in searching a database, comprising:

a set of instruction codes for receiving an input of a search expression that contains a search term made of a given character string and field information specifying a field in a document file where the search term appears;

a set of instruction codes for referencing ~~a data file~~ an index file stored in memory and retaining information indicating a correspondence of information that specifies said document file to the keyword according to a field in said document file;

a set of instruction codes for specifying a keyword corresponding to said search expression that comprises said field information;

a set of instruction codes for acquiring information specifying a document file including the specified keyword; and

a set of instruction codes for outputting the information acquired by referencing said ~~data file~~ index file as a search result;

wherein the index file comprises a key file that includes a list of pointers to character strings and positional information;

wherein the character strings are included in the document file and are stored in the database by document area where a character string in the document file appears and by a positional information file;

wherein the positional information file includes a list of positional information containing information that specifies the document file where a character string exists and information that specifies a position of the character string in the document file regarding the character string in the

key file; and

wherein for a variable-length chain included in the index file, a set of instruction codes creates a relational file by dividing each word in the variable-length chain into a plurality of fixed-length keywords.

16. (Currently amended) The computer program product according to Claim 14, further comprising:

a set of instruction codes for reading the document file from the database;

a set of instruction codes for extracting a text of the document file and information indicating a structure of the document file, to send the text and the information to a set of instruction codes for executing the search expression; and

a set of instruction codes for executing the search expression creating the ~~data file~~ index file based on the text and the information indicating the structure of the document file.

17. (Currently amended) The computer program product according to Claim 14, wherein the ~~data file~~ index file retains, as positional information on the keyword, information that identifies the document file containing the keyword and information that specifies a position of the keyword in the document file, each item of the positional information being associated with a corresponding item of the keyword listed as a separate item for a respective field.

18. (Currently amended) The computer program product according to Claim 14, wherein the data-file index file comprises:

a first table that lists character strings contained in the document file stored in the database and pointers to positional information on the character strings, each character string being listed as a separate item for respective fields where the character string appears in the document file; and

a second table that lists positional information on each character string including the character strings listed in the first table, said positional information including information that identifies the document file containing the character string and information that specifies a position of the character strings in the document file.

19. (Currently amended) The computer program product according to Claim 13, further comprising:

means for reading the document file from the database;

means for extracting a text of the document file and information indicating a structure of the document file, to send the text and the information to a set of instruction codes for executing the search expression; and

means for executing the search expression creating the data-file index file based on the text and the information indicating the structure of the document file.

20. (Currently amended) The computer program product according to Claim 13, wherein the ~~data file~~ index file retains, as positional information on the keyword, information that identifies the document file containing the keyword and information that specifies a position of the keyword in the document file, each item of the positional information being associated with a corresponding item of the keyword listed as a separate item for a respective field.

21. (Currently amended) The computer program product according to Claim 13, wherein the ~~data file~~ index file comprises:

- a first table that lists character strings contained in the document file stored in the database and pointers to positional information on the character strings, each character string being listed as a separate item for respective fields where the character string appears in the document file; and

- a second table that lists positional information on each character string including the character strings listed in the first table, said positional information including information that identifies the document file containing the character string and information that specifies a position of the character strings in the document file.